AU/ACSC/203/1999-04

AIR COMMAND AND STAFF COLLEGE

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"HOLLOW FORCE" OF THE 1990s?

A CRITICAL VIEW OF AIR FORCE OPERATIONAL READINESS DECLINE

by

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A Research Report Submitted to the Faculty

In Partial Fulfillment of the Graduation Requirements

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April 1999

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Preface

I chose this topic to investigate for myself the troubling readiness situation. I believed it would be interesting to compare the state of readiness in the 1990s to that of the "hollow force" of the late 1970s. This comparison, although limited in scope, is an attempt to explore the question of whether we are in a "hollow force" situation now, as compared to the late 1970s. I credit my good friend and mentor Colonel Dick Alquist with planting the seed with me to pursue this topic.

I realize the conclusions I draw may contradict views of senior leadership. Certainly, this is not the goal. On the contrary, the goal is to engage in a critical analysis using history as a benchmark, while producing a product that could contribute to academic debate.

The reader will notice I have heavily cited two particular sources. This citing is necessary because with the nature of my comparison, I needed to obtain two definitive snapshots of readiness from each era. The first, "The Hollow Force That Was," is an article featured in Air Force Magazine, that was excerpted from a larger paper. Although I was unsuccessful in locating the full paper as a primary source, the article proved sufficient. I have assumed the author, who worked as an analyst in the Directorate of Programs and Evaluation at Headquarters Air Force, the office that authored the larger paper, portrayed the data used in a factual manner. The second source could not be more definitive, as it was written by Air Force Chief of Staff, General Ryan (no doubt with

much staff assistance), and provided to Senator McCain in September 1998 as responses to the Senator's 30 questions on readiness.

I would like to acknowledge the assistance of my faculty research advisor, Lt Col Udemi. His support in guiding me through this journey was invaluable.

And last, but certainly not least, I would like to acknowledge the undying support of my wife and family in my efforts to complete this project. Without them, it would not have been possible.

Abstract

The late 1970s was an era that most, if not all, defense analysts agree was a period of a "hollow" Air Force. Many indicators drove this conclusion, including dips in equipment readiness rates and personnel, training, and logistics statistics. In the 1990s, the Air Force is experiencing similar dips in indicators. Senior Air Force leadership has drawn short of using "hollow force" to describe the current Air Force situation. However, many parallels exist between the two eras. In addition, there is significant disparity between forward and deployed readiness levels in the 1990s. Can it be said that when compared to the late 1970s, the Air Force is "hollow"? If the answer is "no," then could it be said that CONUS forces are experiencing a "hollow force" situation? This paper compares and contrasts the past with the present using recruitment, retention, pay comparability, and mission capable and cannibalization rate indicators and draws conclusions on whether or not the Air Force is currently experiencing a "hollow force" situation.

Chapter 1

Introduction

The late 1970s was an era commonly referred to as a period of a "hollow" military force. In the Air Force, Lieutenant Colonel Daniel Cuda, an analyst in the Directorate of Programs and Evaluation on the Air Staff, wrote an Air Force Magazine article entitled "The Hollow Force That Was," which was excerpted from a larger paper authored by his Directorate, entitled "Defining a 'Hollow Force': Assessing the Air Force from 1974 to 1989".[1] With respect to the "hollow" Air Force, he said "the clearest symptoms were poor morale, inadequate flying hours, lack of spare parts, an exodus of highly trained personnel, and the inability to attract high-quality recruits."[2] In the 1990s, the Air Force is experiencing similar dips in indicators. Senior Air Force and Congressional leaders have drawn short of using "hollow force" to describe the current Air Force situation. Instead, for example, Air Force Chief of Staff General Michael Ryan recently told the House Armed Services Committee that "indicators are not good,"[3] while Senator John McCain R-AZ, is quoted as saying, "we are going hollow."[4] Further, Representative Floyd Spence, R-SC, issued the following harsh assessment following numerous readiness hearings in 1998 by saying "[t]he committee remains concerned by contradictions between official reports of military readiness and the reality confronting

military personnel in the field. [T]he ability of US armed forces to train for their primary warfighting missions has been seriously compromised."[5]

However, the mantra of "doing more with less" has, in some cases, evolved into "doing less with less" during an incredibly busy time in history. National leaders have the military committed in a wide variety of contingencies, to include supporting humanitarian relief and drug operations and enforcing no-fly zones, while since 1991, "contingency deployments have increased four times that of pre-war levels and have contributed to reduced retention rates which affect readiness."[6] In addition, there is significant disparity between forward and deployed readiness levels. Mr. F. Whitten Peters, acting Secretary of the Air Force, said "we have intentionally allowed a decrease [in mission capable rates] here in the U.S. so that our front-line units are at the highest readiness levels."[7]

Can it be said that when compared to the late 1970s, the Air Force is "hollow"? If the answer is "no," then could it be said that CONUS forces are experiencing a "hollow force" situation, thereby creating a "partially hollow" Air Force overall? This paper will compare the past with the present using various indicators and draw conclusions on whether or not the Air Force is experiencing a "hollow force" situation, whether it is in part or in total.

Background and Significance

Following the end of Desert Storm, and coincident with a new U.S. President and Defense Secretary, the Air Force has been drastically changing. These changes have run the gamut from organizational and process changes to considerable force structure and manpower cuts, all being budget driven. Prior to Desert Storm, however, the one

significant world event that fueled the call to cut defense was the fall of the Berlin Wall in 1989 and the subsequent dissolution of the Soviet Union. The Cold War was won, and it was now time, many in the U.S. said, to take a "peace dividend" from winning the Cold War.

Just how far and how fast to draw defense down was the subject of endless debate within the U.S. and even abroad, as the nation re-shaped the military's support to NATO and the United Nations. Desert Storm seemed to have temporarily muted the call for immediate and drastic defense cuts; but, when the war was completed, and what President George Bush called the New World Order arose, the questions of "Where's the threat?" began to surface ever more prominently.

Running on a platform that called for defense cuts to contribute to bringing down the federal deficit, President William Clinton used then Congressman Les Aspin's Option C as his plan for the defense draw down. Overall, Option C called for a military force structure of 1.4-million personnel in 1997, with the Air Force having 10 active flying wings. Many in defense circles called Option C too drastic a cut, and supported President Bush's Base Force Plan. This plan called for a 1.6-million personnel military force with 15 active flying wings in the Air Force, able to fight two major regional contingencies simultaneously. With the election won, the Clinton administration set out to draw the military down using Option C. The new President even hired Congressman Aspin to be his Secretary of Defense to orchestrate the draw down and with a Democratic majority in Congress, Aspin sailed through confirmation in early 1993.[8]

To date, the Air Force has drawn down its personnel from 602,000 in fiscal year (FY) 1985 to 371,000 by the end of FY 1998.[9] In terms of aircraft, the Air Force has

drawn down from 36 fighter wing equivalents (FWEs) in FY 1986 to 20 FWEs in FY 1998.[10] The draw down has brought the Air Force to readiness levels that alarm many defense leaders, to include Congress, not to mention the Air Force members who must make their part of the Air Force as ready as possible.

Cautions of an unready force began as early 1990, when the Air Force performed a study entitled "Air Force Logistics Health, Impact of [Defense Management Review Directives] DMRDs Into the 1990s". In it, the Air Force said the combination of a budget order from the Pentagon Comptroller and the directives "will significantly reduce readiness beginning in fiscal 1991. This outcome conflicts with the stated Secretary of Defense goals of avoiding hollow forces." The study measured the readiness decline in terms of a decreased aircraft mission capable rate.[11] Similar rhetoric has continued through the 1990s, while reaching a crescendo lately.

Many defense leaders, in the military and in Congress, remember the "hollow force" of late 1970s and believe many of the same indicators show similar declines today. Drops in aircraft mission capability rates, lack of spare parts to fix aircraft, and low retention rates in the officer and enlisted ranks are all Air Force problems which contribute to a decrease in readiness. Is this level of readiness acceptable? The Chairman of the Joint Chiefs of Staff, General Hugh Shelton, United States Army, said readiness was acceptable while testifying before Congress on the fiscal year 1999 budget in February 1998. The Chairman said the military remains "fully capable of conducting operations across the spectrum of conflict."[12] Later in 1998, General Shelton and Secretary of Defense William Cohen said in an interview that they recently told the President that the military was trained and ready to carry out the National Military

Strategy of fighting two major theater wars. However, General Shelton continued by saying they cautioned the President "that the risk of fighting the second one has been going up" and balancing readiness, quality of life, and modernization "has become a challenge that is almost insurmountable within the current [DOD budget]."[13] The President's recently proposed $110 billion defense budget increase in the year 2000 Future Years Defense Plan (FYDP) is a positive signal that the Administration is taking heed. But, the question remains, how far has readiness dipped?

Assumptions

This paper employs several assumptions to base its arguments. First, it assumes the "late 1970s" is the period from around 1976 to 1980. Second, this paper draws information from the entire 1990's and treats it as the present. Further, the expected readiness effects, in terms of improved people programs and spares support, as a result of the President's year 2000 budget are beyond the scope of this paper, as those effects have not materialized. Finally, the cannibalization rate for the late 1970s leveled off as F-15 spares support improved and the Air Force emerged from its "hollow" situation.

Notes

[1] Lt Col Polly A. Peyer, USAF, "Hollow Force: Scare or Dare?", 1994 Executive Research Project, Industrial College of the Armed Forces, Ft. McNair, Washington D.C., April 1994, bibliography.

[2] Lt Col Daniel L. Cuda, USAF, "The Hollow Force That Was," *Air Force Magazine* April 1994, 69.

[3] Staff Sergeant Michael Dorsey, Air Force Print News, "Ryan: Readiness is top budget priority," *Maxwell-Gunter Dispatch,* January 29, 1999.

[4] Rick Maze, "Chiefs Deliver a Blunt Message," *Air Force Times*, August 31, 1998, 3.

[5] Peter Grier, "Readiness in a Downdraft," *Air Force Magazine*, July 1998, 67.

[6] General Michael E. Ryan, HQ USAF/CC, personal memorandum to Senator John McCain (with attachment consisting of answers to 30 questions on readiness), 25 September 1998, 33.

Notes

[7] William Matthews, "A Plea for Help. Better Pay, Bigger Budgets Called Key to Fixing Readiness Woes," *Air Force Times*, September 28, 1998, 3.

[8] James C. Hyde, "Confirmation a Breeze for SecDef Aspin; Juggling Priorities Won't Be as Easy," *Armed Forces Journal International*, February 1993, 8-9.

[9] Major General George T. Stringer, Deputy Assistant Secretary of the Air Force (Budget), "FY99 President's Budget."

[10] Ibid.

[11] Tony Capaccio, "Spare Parts Shortages Could Leave USAF With "Hollow Force," *Defense Week*, Volume 11, Number 49 (Monday, December 3, 1990): 1.

[12] Jim Garamone, "Shelton Says U.S. Readiness Acceptable," *American Forces Press Service*, n.p., on-line, Internet, available from http:/www.dtic.mil/afps/news/9802132.htm.

[13] Jim Garamone, "Cohen, Shelton Warn Readiness is "Fraying," *Air Force News, American Forces Press Service*, on-line, Internet, available from http://www.af.mil/news/Sep1998/n19980929_981486.html, 29 Sep 1998, 1.

Chapter 2

Readiness in the Late 1970s

Before detailing Air Force readiness in the late 1970s, a review of two significant contextual elements that helped shape the climate is in order. First, the country was in the midst of the post-Vietnam draw down. The bitter circumstances surrounding the U.S.' pull out left a country, a Congress, and a President ready to slash military funding in favor of domestic and humanitarian concerns. This lack of funding and popular support translated into military members struggling to find some pride in their professions and some respect from the public. The lack of pride and respect drove many of the best out, and kept many of the best recruits from entering the new All Volunteer Force that began in 1974. And further, reflecting the habits and attitudes prevalent in society at large, drug use and racial problems contributed to drops in overall quality force as the draw down continued. Second, technology had considerable bearing on the "hollow force" of the late 1970s. In the Air Force, the F-15 was replacing the venerable F-4, and contributed significantly to the overall low mission capability rates. The growing pains of bringing on a new jet fighter in a constrained budgetary environment put great stress on Air Force personnel and leadership.

Personnel indicators and the "hollow force"

Recruitment

The late 1970s is an era where it was difficult to attract quality troops. Figure 1 shows the quality of new recruits in terms of the Armed Forces Qualification Test (AFQT), which classifies recruits on a scale of trainability. Category 1 is the highest level of trainability and Category IV is the lowest. Category I-III denotes very high trainability to average trainability, respectively,[1] and represents all those recruits scoring in the top 50th percentile.[2]

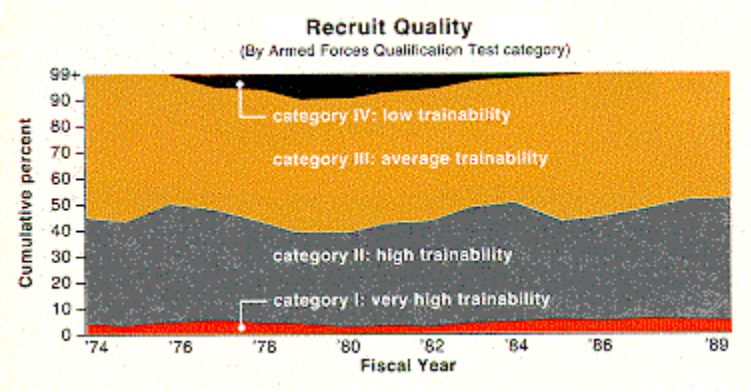

Figure 1 – Recruit Quality for the Years 1974-1989

The number of Category IV recruits peaked at 9% in 1979 and 1980.[3] This high number of Category IV recruits in a critical time of bringing on new weapons systems such as the F-15, made it extremely difficult for the Air Force to maintain high readiness rates.

Retention

Just as recruitment of high quality troops was difficult, so was retaining first- and second-term airmen. The late 1970s experienced significant dips in re-enlistment rates. Figure 2 portrays the re-enlistment trends for that era.

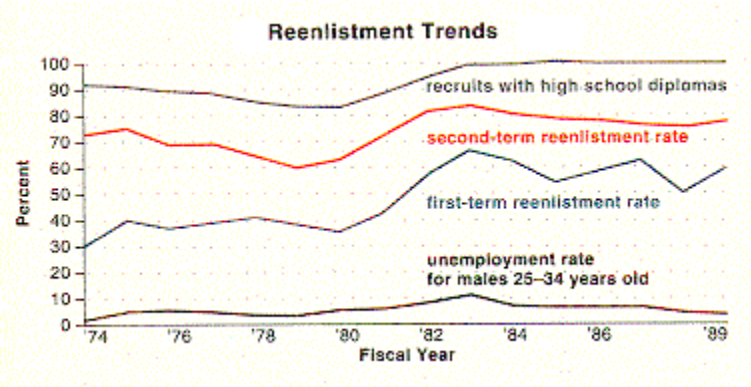

Figure 2 – Re-enlistment Trends for the Years 1974-1989

The figure reveals that first-term retention remained roughly stagnant through the 1970s and second-term retention dipped to 69% in 1979. "A significant factor [for leaving], particularly among second-term personnel, was an erosion of benefits. In addition to pay caps, there were also real and threatened cuts in basic benefit areas."[4]

As Peter Grier states in an *Air Force Magazine* article, some studies have concluded that the primary reason the late 1970s was called a "hollow" force, was the mass exodus of skilled personnel from the services following the pullout from Vietnam. He continues by saying the readiness of Air Force units dropped as a result of this exodus because the people who remained and the new recruits found it difficult to maintain the new, complicated jet aircraft.[5]

Pay Comparability

Pay comparability is an area that contributes significantly to retention. The All-Volunteer Force began in FY 1974 with significant pay increases. However, as seen in

Figure 3, as the 1970s ended, the pay gap due to inflation (the Consumer Price Index (CPI)) rose considerably to 14% at the end of 1979. The civilian-military pay gap (the Employment Comparability Index (ECI) peaked at about 7.5% at the end of 1979.[6]

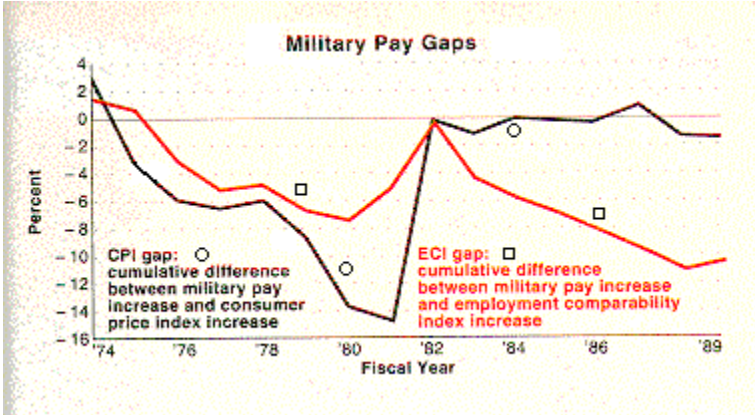

Figure 3 - Military-Civilian Pay Gaps for the Years 1974-1989

As seen in Figures 2 and 3, civilian unemployment decreased and military pay failed to match inflation (ECI) and civilian sector pay (CPI) growth.[7] It stands to reason that as it became easier to find a job on the outside, more people left the Air Force, especially when pay was not keeping pace with the cost of living and employment competition.

Aircraft readiness indicators and the "hollow force"

Mission Capable (MC) Rates

"Stories of aircraft grounded for lack of spare parts are a standard feature in descriptions of the hollow force."[8] Figure 4 shows the trend of MC rates from 1975 to 1989.

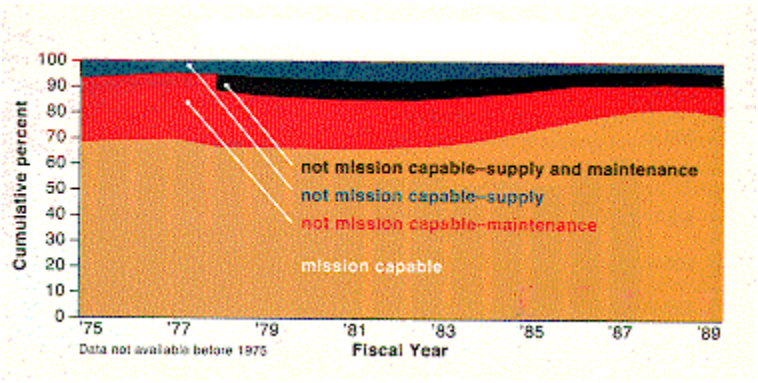

Figure 4 - Mission Capable Rate for the Period 1975 to 1989

The graph shows how the MC rate steadily decreased and leveled out at about 68% during the late 1970's, then steadily increased as the Reagan build-up progressed. Also, it shows the not mission capable (NMC) rates chargeable to supply (NMCS), to maintenance (NMCM), and to both. A significant portion of this NMC rate was the NMCM. In this time period, the high NMCM rates can most simply be attributed to the "lack of good-quality recruits, low re-enlistment rates, and disciplinary problems, affect[ing] the quality of aircraft maintenance…"[9]

Cannibalization rates

Data for this area of comparison could not be obtained. The assumption used is outlined in the assumption section of this paper.

Notes

[1] Lieutenant Colonel Cuda,71.
[2] General Ryan, *Sen McCain Questions*, 1.
[3] Lieutenant Colonel Cuda,71.
[4] Ibid, 70.
[5] Grier, 66.
[6] Lieutenant Colonel Cuda, 70.
[7] Ibid.
[8] Ibid, 72.
[9] Ibid, 72.

Chapter 3

Current Air Force Readiness

As the United States entered the 1990s, the Cold War victory began to shape the contextual landscape for the Air Force. The draw down was beginning even as the Bush Administration closed out its term, with the attention shifting to bringing down the deficit. At the same time, national leaders tried to find new roles and missions for an Air Force and military without the monolithic communist threat. The debate was considerable. Desert Storm did little to stop the draw down, and the country's leaders busily labored to recoup a "peace dividend."

How far and how fast to draw defense down was the important topic of concern. These budget cutbacks and force structure reductions concerned General Michael Loh, Commander of Air Combat Command (ACC) so much, that in 1993, he voiced his concern to the USAF Vice Commander by writing "ACC might become a "hollow force" if certain fiscal trends were allowed to continued." He continued by writing "as a commander and provider of air forces around the world, I feel it is imperative we address these issues before they negatively impact our overall readiness."[1]

The country's leaders also anxiously worked to find news roles for the Air Force. As Air Force Chief of Staff, General Merrill McPeak cited, an area of considerable concern was "the Air Force's absorption of "non-traditional missions," such as humanitarian and

peacekeeping operations, which is causing a drain on training and maintenance resources."[2] These additional missions increased OPTEMPO and affected quality of life for Air Force members. When the Chief Master Sergeant of the Air Force Eric Benken testified before Congress on Quality of Life Issues in March 1998, he said "…we, with your help can do something to alleviate some of the hardships our people endure during these times of high tempo."[3]

Now, as the military prepares for the new millenium, many of the so-called "non-traditional missions," covering the entire spectrum of operations other than war, have become institutionalized in both Air Force and Joint doctrine. As part of the global engagement strategy outlined in the National Security Strategy, "American leadership and engagement in the world are vital for our security, and the world is a safer place as a result."[4] This "imperative of engagement" leaves little doubt that the OPTEMPO equation will continue to include involvement in these "non-traditional missions." In fact, as a new generation of leaders and Air Force members develop, driven by national will, it appears these types of missions have evolved and are now codified as "traditional" missions.

Personnel indicators and the 1990s

Recruitment

According to the Air Force Chief of Staff, General Ryan, in responses to readiness questions from Senator McCain, the Air Force continues to meet its accession goals, but it is getting harder to meet these goals when retention continues to drop. Figure 5 shows the recruiting performance since 1991.[5]

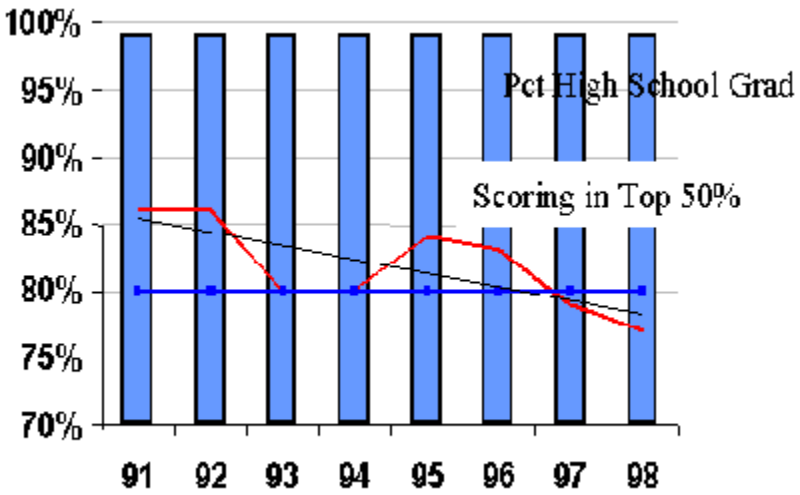

Figure 5 – Recruits Scoring on the Armed Forces Qualification Test, 1991-1998

The overall quality of recruits is going down. The Air Force has met its goal of having 80% of its recruits score in the top half of the AFQT through the 1990s, except for 1997 and 1998. But, the overall trend is downward.[6]

Retention

Retention is sagging considerably in both the enlisted and officer ranks. Further, General Ryan states that responses to the 1997 CSAF Quality of Life survey indicate pilots and second-term airmen are the least likely to make a career of the Air Force.[7] As such, the second-term airmen retention rate drives most of the concern**.** The Air Force

goal is to re-enlist 75% of the second termers, but as of 31 August 1998, the number is only 69%.[8] Figure 6 highlights some high driver Air Force Specialties and their respective second-term re-enlistment rates.

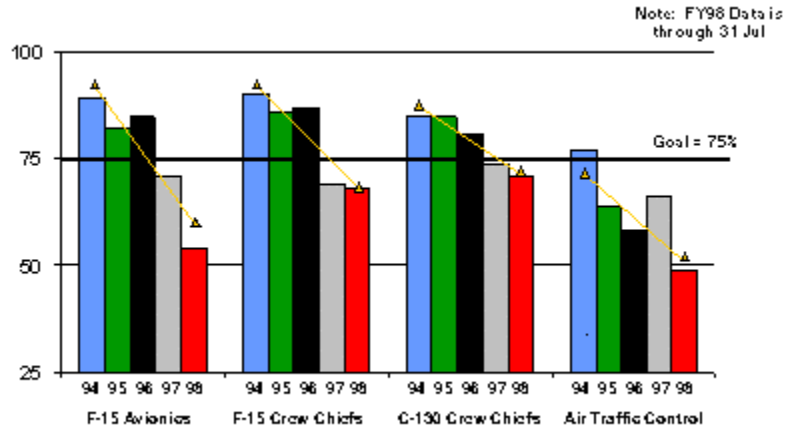

Figure 6 – Retention Levels of Selected Enlisted Air Force Specialties, 1994-1998

As General Ryan states, "over 265,000 airmen, 90% of the enlisted force, will make a reenlistment decision between now and FY01…with a super economy, there is potential to have large numbers of our enlisted—our technical foundation—migrate to the civil sector and more stable lives for them and their families."[9]

As for the officer side of retention, retaining pilots is the challenge of the late 1990s. General Ryan explains that significant airline hiring since 1994 has been the driving factor in making pilots, whose service commitment is complete, extremely marketable on the outside. This premise is directly supported by the Aviation Career Pay (a.k.a. the Bonus) Take Rate peaking at 81% in 1994.[10] Since then, the Bonus Take Rate has dropped to 27% in 1998, and recently rose to 45% as of January 1999. However, a break out of the percentage that signed up for yearly versus longer term contracts was not available as of this writing.[11] When put in terms of a simple Requirement vs. Inventory,

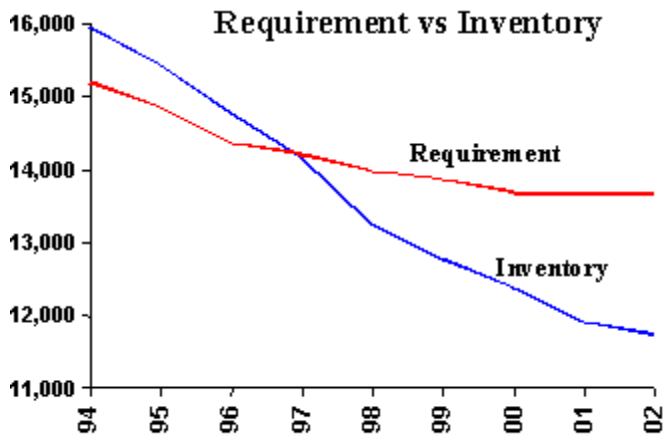

Figure 7 – Air Force Pilot Requirement vs. Inventory, 1994-2002

Figure 7 shows the pilot inventory steadily declining to a projected 2,000 pilot shortage in 2002.[12] When polled on why they did not take the Bonus, pilots cited high TEMPO (19%), impacts on quality of life (14%), and airline hiring (11%) as key drivers in their decision to separate from the Air Force.[13]

Pay Comparability

The "pay gap" is cited frequently as a significant detractor to morale, retention, and recruitment in the Air Force. The "pay gap" is estimated at 13.5 percent, according to an August 1998 Air Force Times article. The article also explains the realization that a widening "pay gap" was hurting both retention and recruiting seems to have formally occurred in May 1998. Then, the Joint Chiefs held a special meeting and were told the military was headed for a personnel crisis without significant pay raises.[14]

Obviously, a strong signal was sent to the White House in the succeeding days, because on 20 August 1998, the Clinton Administration announced a 4.4 percent raise in the year 2000 budget. Such a raise, if it remains intact, would represent a proposed raise that is higher than the average increase in civilian wages (ECI), and would be the first

time this Administration has done such a thing. In fact, President Clinton proposed freezing military pay in his first year in office; but, in recent years, the Administration has proposed pay raises that lag the average civilian pay increases by one-half of a percentage point.[15]

It is clear that the Clinton Administration policy toward military pay has contributed to the "pay gap." With retention and recruitment dangerously low, the senior leadership in the military now has evidence to show at least the partial effect of the "pay gap." Now, with the proposed 4.4 percent pay raise in the year 2000, there appears to be a shift in policy towards military pay.

Aircraft readiness indicators and the 1990s

MC Rates

MC rates in the 1990s have been dropping since 1991. According to General Ryan, the aggregate Air Force NMC rate increased from about 17% in 1991 to 25% in 1998 as shown in Figure 8.

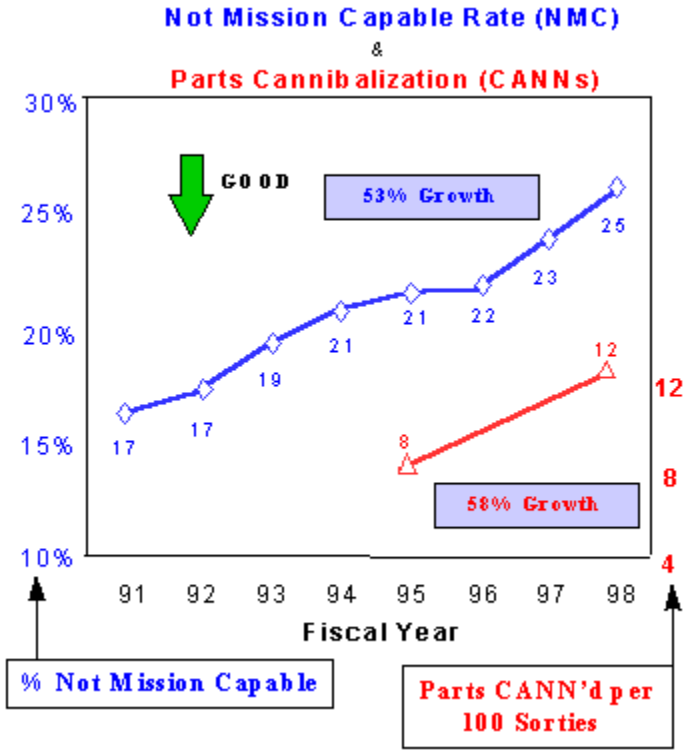

Figure 8 – Air Force NMC and Cann Rates, 1991-1998

This increase represents a 53% growth in the NMC rate over 7 years.[16]

The Chief further illustrated the mission capability problems in the Special Interest Commanders' NOTAM on Readiness, dated 29 September 1998. He explained that while forward-deployed forces have maintained a relatively high state of readiness due to supply priority, CONUS forces have suffered.[17] With the overall major unit readiness dropping by 19% since 1996, readiness rates of CONUS-based forces have

plummeted 58% over that same period.[18] Moreover, General Ryan testified before the House Armed Services Committee on January 20, 1999, and told them stateside readiness alone is down 28% from last year.[19]

Cannibalization rates

An indicator that has been used considerably of late to illustrate spare parts shortages in 1990s is cannibalization (cann) rate. The Air Force only began to track and aggregate cann rate in FY 1995, and as Figure 8 shows, the growth over the last few years has been a considerable 58%.

Cannibalization is an indicator of additional costs and a supply system unable to support the mission. In order to maximize aircraft availability and MC rates, if a spare part is not available in supply to fix a particular problem, the leadership in the maintenance unit will most likely decide to take it from another aircraft, normally down for other reasons. The additional costs are in terms of manpower required to take the part off the donor airplane and then put the new part back into the donor aircraft when it arrives from supply. Additional concerns include wear and tear on equipment, tools, and aircraft by doing double work, and the morale impact on technicians doing that double work.

Cannabilization also reflects the inability of the supply system to support the mission based on "a combination of aging aircraft, increased failures, poor forecasting, underfunding, and execution problems."[20] In the 1990s, the Air Force made great strides in improving logistics processes, streamlining them to provide timely support to flying operations. Many innovations, now encompassed by the Agile Logistics umbrella, helped sustain the Air Force during the drawdown, as Congress mandated the elimination

of spares excesses by cutting funding in the mid-1990s. Now, however, Congress seems satisfied the services have eliminated the excesses. General Ryan cites spares funding in FY 1998 and 1999 President's Budgets at 95% and 100%, respectively, as a means to overcome the underfunding and unanticipated requirements growth of the mid-1990s.[21] These funding levels are good news, but it will take up to several years for the overall spares posture to improve significantly, as it will take time for the logistics support system to recover.

Notes

[1] Air Combat Command History Office, *History of ACC: January – December 1993*, Volume I, available from classified source at Air Force Historical Research Agency, Maxwell AFB, AL, information used is unclassified, 5.

[2] Brian Green, "Readiness at Risk," *Air Force Magazine*, October 1993, 11.

[3] Chief Master Sergeant of the Air Force Eric W. Benken, "Quality of Life in the Military," CMSAF Congressional Testimony, Presentation to the Committee on Appropriations, Subcommittee on National Security, United States House of Representatives, on-line, Internet, available from http://www.af.mil/lib/cmsaf/testimony.html, (March 1998): 2.

[4] The White House, *A National Security Strategy for a New Century* (May 1997), 2.

[5] General Ryan, *Sen McCain Questions*, 1.

[6] Ibid, 1.

[7] Ibid, 18.

[8] Ibid, 3.

[9] Ibid, 3.

[10] Ibid, 4.

[11] Major General Joseph H. Werhle, Jr., Director of Programs, Headquarters Air Force, "FY00 President's Budget," briefing to Air Command and Staff College, February 1999, with permission.

[12] General Ryan, *Sen McCain Questions*, 4.

[13] Ibid, 19.

[14] Jack Weible, "Clinton Seeks Biggest Pay Raise Since '82," *Air Force Times*, August 31, 1998, 4.

[15] Ibid.

[16] General Ryan, *Sen McCain Questions*, 3.

[17] General Michael E. Ryan, *Special Interest Commanders' NOTAM on Readiness,* 29 September 1998.

[18] Major General Joseph H. Werhle, Jr., "FY00 President's Budget."

[19] Staff Sergeant Dorsey, *Ryan: Readiness*, 15.

[20] General Ryan, *Sen McCain Questions*, 38.

Notes

[21] Ibid, 25.

Chapter 4

Comparison and Contrast of Two Eras

Before analyzing the readiness indicators, a contextual look at the two eras provides interesting similarities and differences. First, both eras experienced a post war military drawdown, albeit for different reasons. What is most telling is the difference in magnitude of the two end strength drawdowns. End strength dropped 4% from 1976 to 1980, while the end strength dropped 28% from 1991 to 1998,[1] while today's Air Force "fields a force deployed four times greater than it did in 1989."[2] Such a drastic personnel cut, accompanied by a myriad of changes and high TEMPO, would significantly affect even the finest of organizations. Second, from a socio-cultural standpoint, public support of the military was markedly different in the two eras. In the 1970s, the lack of public support was a contributing factor for people not wanting to stay in the Air Force. However, in the 1990s, public support is high, but it does not appear to be a significant contributing factor for people wanting to stay in the Air Force. In addition, in the late 1970s, erosion of benefits significantly drove the dip in second-term re-enlistment. Along with pay caps, real and threatened cuts to basic benefit areas also impacted re-enlistment.[3] Similarly, the 1990s has seen its share of real and threatened cuts to basic benefit areas. Changes in military health care, the "pay gap," the advent of the Redux retirement system, with its 40% of base pay at 20 years of service provisions, and threats

such as commissary closings and base housing eliminations, have all contributed to many Air Force members' loss of faith in the system and their choice to separate.

Personnel Indicators

Recruitment—Past and Present

In comparison, both eras saw a difficulty in attracting high quality recruits. With the civilian job market strong in both eras, the competition for quality people remained keen. In contrast, the late 1970s was more successful in limiting Cat IV recruits as opposed to the 1990s, only reaching about 9% in 1979 and 1980.[4] While on the other hand, there has been a steady increase in Cat IV recruits in the 1990s, peaking at about 23% as of September 1998, with an upward trend since 1991.[5]

Retention—Past and Present

Retention is another area where striking similarities between the two eras are evident, although the magnitudes differ a bit. Air Force retention correlated directly with the unemployment rate in both eras. While the robust economy of the 1990s, supported by low inflation (unlike the 1970s), appears likely to continue to fuel a strong job market, the Air Force is presented with an even greater challenge to retain its workforce. These losses hurt most when the ones who are leaving, most notably second-term airmen and pilots, possess the skills and training required to operate and to maintain advanced aircraft and systems. In the 1970s, second-term re-enlistment bottomed out at 60% in 1979,[6] while as of 31 August 1998, the Air Force was running at 69% for the year, falling short of the 75% goal.[7] For the same reasons as mentioned previously for recruitment, it

appears the Air Force will have a significant challenge with retention into the 21st century unless significant changes are made.

Pay Comparability—Past and Present

Striking parallels exist between the two eras with respect to the "pay gap." In the late 1970s, the "pay gap" peaked in 1979 at about 7.5 percent based on the ECI.[8] While on the other hand, the "pay gap" in late 1998 was 13.5 percent. In fact, as retired Lieutenant General Michael Nelson states, "service members' pay raises have been capped below comparability with private-sector workers' raises for 12 of the past 16 years," based on the ECI.[9] Therefore, the legacy of the "pay gap" stems from earlier times and should not be considered wholly a product of the 1990s and Clinton Administration policy. However, the fact remains, when compared with the "hollow force" of the late 1970s, the 1990s' "pay gap" stands as significantly more substantial. Sustained pay raises, in excess of the ECI and through the FYDP and beyond, will be required to close the gap.

Aircraft Readiness Indicators

MC Rates—Past and Present

A comparison of the MC rates between the past and present provides an interesting view. The overall Air Force-wide MC rates in the period from 1977 to 1981, decreased to 70% and 65%, respectively.[10] As Table 1 shows below, the MC rates for the period from 1994 to 1998 were 79% and 75%, respectively,[11] and virtually mirrored the magnitude of the decline of the previous era.

Table 1 – Comparison of Overall and Fighter MC Rates, 1977-1981 and 1994-1998

MC Rates/Yrs	'77	'81	'94	'98
Overall	70%	65%	79%	75%
Fighter	57%	65%	85%	75%

Sources: Lt Col Daniel L. Cuda, USAF, "The Hollow Force That Was," *Air Force Magazine* (Apr 94), p. 72 and General Michael E. Ryan, HQ USAF/CC, Answers to Senator John McCain's 30 Questions on Readiness, (25 Sep 98), p. 25 and HQ ACC/LGP, Fighter/Bomber Statistics Brief to Commander, Air Combat Command (Sep 98).

What is striking, however, is how the fighter MC rates contrast for roughly the same time periods. From 1978 to 1981, the fighter MC rate increased from 57% to 65%, respectively, due in large part to F-15 spares support and training improvements. However, the overall Air Force-wide fighter MC rate for the period from 1994 to 1998 dropped a total of 10%, 85% to 75%, respectively.[12] So, as the overall MC rate in the late 1970s dropped, the fighter MC rate improved. Conversely, as the overall MC rate in the 1990s dropped, the fighter MC rate dropped significantly.

If the Air Force of the late 1970s had an opportunity to emerge from its "hollow" situation somewhat by improvements in F-15 weapons system support (along with the substantial budget increases of the 1980s), what similar opportunity does the Air Force of the 1990s have? If an analogy is drawn with the F-15 and its difficult introduction into service, the Air Force might expect similar challenges with the F-22. Simply put, the fighter MC rate of the 1990s will require improvement based on factors other than those seen in the late 1970s and early 1980s. If the analogy holds true, the F-22 will present additional negative affect on fighter MC rates as it achieves initial operational capability in 2005.[13] In preparation for the F-22, solutions, independent of new weapons system introduction, must be found to improve both fighter and overall MC rates. Coupled with

the high TEMPO, aging fleet, and retention concerns in the late 1990s, the magnitude of the challenge is clear.

Cannibalization Rates—Past and Present

Air Force-wide cann rates are only available since 1995, although ACC, formerly the Tactical Air Command, has tracked operational fighter cann rates since FY 1986. This data reveals 8.5 canns per 100 sorties in FY 1986, increasing on a constant slope to 16.1 canns per 100 sorties in FY 1998.[14] For the purposes of this paper, it is assumed that the cann rates for the late 1970s increased primarily due to the non-availability of spare parts for new weapons systems such as the F-15 and the A-10. But as initial spares were produced and put into the pipeline and remedies for high driver parts problems, such as those experienced by the F100 engine, were found, it is assumed that any upward trend in cann rate leveled out. And of course, when the Reagan build-up began, it is safe to assume that cann rates dipped considerably. However, in the 1990s, as shown in Figure 8, the cann rate has grown by 58% since 1995.[15] Such a cann rate drove maintenance personnel to do double work in an extremely tight manpower environment, forced extended work hours, increased frustration with military members and their families, and increased wear and tear on aircraft and equipment.

Taking another angle, a comparison of cann rates between CONUS and deployed forces in the 1990s reveals an interesting dichotomy. Even though "the Air Force front-loads its overseas and forward deploying bases so they have high readiness, [while]…readiness suffers at home,"[16] the cann rate for the 31st Fighter Wing at Aviano Air Base, Italy, is trending upward as shown in Figure 9.

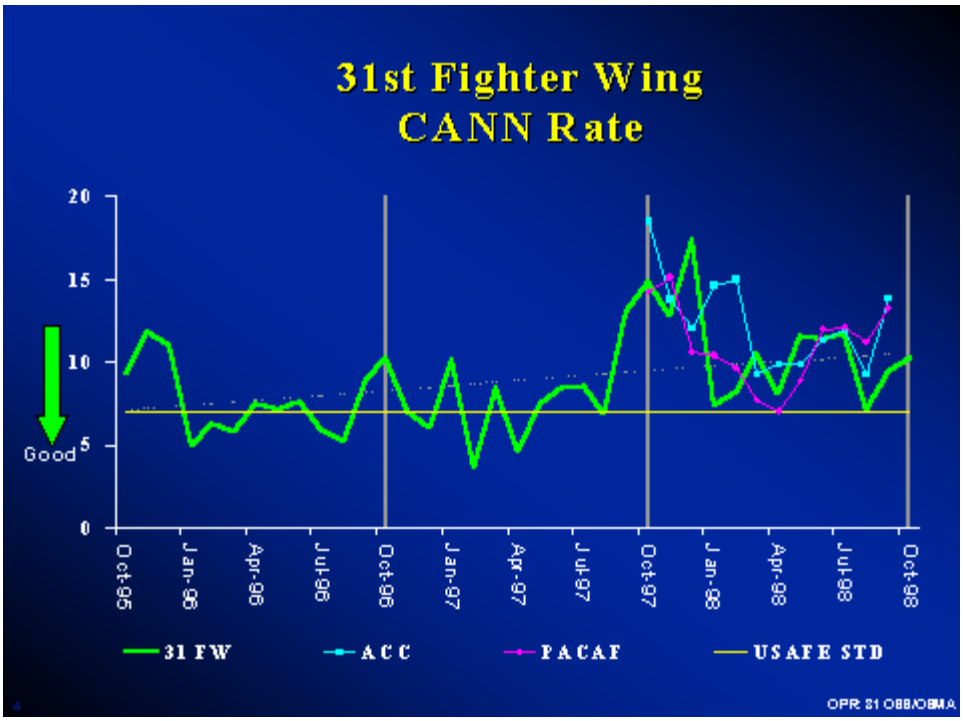

Figure 9 – 31st Fighter Wing Cann Rates as Compared to ACC and PACAF,

Oct 1995-Oct 1998

In addition, although not shown in this paper, this cann rate is accompanied by a downward trend in MC rate over the last 3 years.[17] Using this example, this front-line unit, which is participating in the Air Force's only real-world contingency operation from home station and obviously wielding high supply priority, lives with a supply pipeline that cannot support the Wing at levels required to flatten the negative cann and MC rate trends. Suffice it to say, the cann and MC rates, be they overall, at CONUS, or at forward-based units, exhibit unfavorable trends.

Even with the Air Force's best intentions of "front loading" the front line units, it appears inadequate at a place that can be called "the tip of the spear." It remains to be seen whether the recent increases to the depot level reparables budget in FY 1999 will positively affect the cann and MC rates at home and abroad.

Notes

[1] HQ AFPC Personnel Demographics, n.p., on-line, Internet, available from http://charly.afpc.randolph.af.mil/demographics/history.

[2] Chief Master Sergeant of the Air Force Eric W. Benken, 2.

[3] Lieutenant Colonel Cuda, 70.

[4] Ibid, 71.

[5] General Ryan, *Sen McCain Questions*, 1.

[6] Lieutenant Colonel Cuda, 71.

[7] General Ryan, *Sen McCain Questions*, 3.

[8] Lieutenant Colonel Cuda, 70.

[9] Lieutenant General Michael A. Nelson, USAF Retired, "Common Sense on the Pay Gap" MMO 99-063 (Pay Gap Article), n.p., electronic mail, November 2, 1998.

[10] Lieutenant Colonel Cuda, 72.

[11] General Ryan, *Sen McCain Questions*, 25

[12] HQ ACC/LGP, Fighter/Bomber Statistics Briefing Slides to Commander, Air Combat Command, September 1998.

[13] General Ryan, *Sen McCain Questions*, 2.

[14] HQ ACC/LGP, Fighter/Bomber Statistics Briefing Slides to Commander, Air Combat Command, September 1998.

[15] General Ryan, *Sen McCain Questions*, 3.

[16] Staff Sergeant Michael Dorsey, *Readiness is top budget priority*, 15.

[17] 31st Operational Support Squadron, 31st Fighter Wing, Aviano Air Base, Italy, Aircraft Weapon System Review Briefing Charts, January 1999.

Chapter 5

Conclusions

Using the indicators cited in this paper, it appears the 1990s has seen a slow, but constant slide into a "hollow" Air Force. However, this is not to say that it is not a ready force, as Secretary of Defense Cohen said in the 1999 Annual Report to the President and the Congress. He reiterated what was said up to now; "the U.S. military is capable of executing the National Military Strategy, including two overlapping major theater wars, while continuing to meet America's many security obligations around the world."[1] In fact, the approximately 75% of the Air Force commanders who report their readiness in the Top 2 categories truly believe their troops can do the job.[2] They are, rightly so, optimistic about their units' abilities. The one predominant factor that seems to drive this optimism is the quality people the Air Force has retained. With the current downward retention trends, it is even more important to retain as many quality people as possible. By in large, the ones who stay truly want to stay and are committed to the mission. It could be said, therefore, that these quality people are making the "hollow force" work for now. But, can this be sustained, and how far has readiness declined? And further, would these commanders' optimism still be so if they truly believed our nation will actually fight two MTWs nearly simultaneously?

Our leaders have purposely allowed stateside forces' readiness to drop, as they've acknowledged. What other options do they have? When trying to spread the available total obligation authority between current operations, modernization, and infrastructure, CONUS forces in general must be shorted. Because of this fact, there appears to be little room for argument that the Air Force possesses a "hollow" CONUS force.

Taking another viewpoint, if the definition of "hollow" is a force that seems able to perform the mission on paper, but could not in actuality, then today's force still appears "hollow" in an overall sense. With stateside readiness declining 58% since 1996, and overall major unit readiness declining by 19% over the same period,[3] the extent to which forces could be assigned to two theater Commanders-in-Chief (CINCs) nearly simultaneously is seriously questioned. The US national will is to fight wars with minimal casualties. To do this, theater CINCs will demand overwhelming force in the future, as they have in the past. Just how overwhelming could the force for the second MTW be, if the first MTW extended longer than anticipated or more forces are attritted than planned by an enemy employing symmetric and asymmetric means? When General Ryan reported to Senator McCain that "the risk of accomplishing the NMS, particularly the second of two sequential [MTWs], is high in terms of probable casualties and loss of life,"[4] the best face was put on the Air Force readiness situation.

In order to summarize, Table 2 illustrates the conclusions drawn in this paper and rolls up the comparison between the two eras:

Table 2 – Era and Indicator Roll-up

Time/Indicators	Recruitment	Retention	Pay Comparability	MC Rates	Cann Rates
Late 1970s		Lower 2nd term rate *			
1990s	Lower quality recruits		Larger "pay gap"	Higher *	At least as high

* See explanation bullets below.

- Recruitment – The Air Force is recruiting more Cat IV recruits in the 1990s than in the late 1970s. Therefore, recruitment is considered worse in the 1990s than in the late 1970s.
- Retention – Second-term retention is higher in the 1990s than in the late 1970s. However, as previously cited, with over 90% of the enlisted force making a re-enlistment decision between now and FY 2001, there is huge potential for the exodus to continue, especially if the job market remains strong. In addition, the pilot shortage of the 1990s is an extremely serious concern, with questionable hope of a drastic turnaround occurring in the near future. These factors contribute to the 1990s having a slightly worse retention picture than in the late 1970s.
- Pay Comparability – The "pay gap" is higher in the 1990s than it was in the late 1970s, by nearly 6%.
- MC rates – The overall MC rates in the 1970s dipped slightly lower than they have in the 1990s. However, the magnitude of the drops in the two eras is roughly the same. In addition, the late 1970s saw a declining overall MC rate while the fighter MC rate improved. On the other hand, the 1990s saw overall

MC rates decline, while the fighter MC rate declined at a significant rate. In addition, the aging fleet problem, briefly mentioned previously but beyond the scope of this paper, will continue to impact the overall mission capable rate. Therefore, the MC rate in the 1990s is considered worse than in the late 1970s.

- Cann rates – Although cann rates for the late 1970s were not available, using the aforementioned assumption, the 1990s produced cann rates at least as bad as the late 1970s.

So, the question is, why hasn't senior leadership publicly acknowledged the Air Force is "hollow?" It seems there could be several logical reasons. First, and most probable, they just do not believe it is so. As addressed earlier, they do believe the Air Force is close to being "hollow." How much farther would the indicators have to drop? Even in the face of serious dips in readiness indicators and a litany of anecdotal stories, their professional judgment and years of experience compel them to draw short of using the "hollow" word. Second, there could be political pressure to maintain the façade of readiness. Having senior military members claim they are in charge of "hollow forces" flies in the face of the expectation that the military must and can "make it happen." In parallel, it seems no Administration would want to be associated with allowing a "hollow force" to emerge. In this regard, incrementally highlighting readiness deficiencies is most politically palatable. Third, there could be national security implications. Acknowledging a "hollow force" could boost an adversary's hostile will to threaten U.S. interests at home and abroad. And finally, there could be an indirect morale impact on Air Force members. Acknowledging a

"hollow force" could cause Air Force members and their families to wonder why they are working so hard to produce a "hollow" capability.

Notes

[1] William S. Cohen, Secretary of Defense, "Annual Report to the President and the Congress," 1999.

[2] Major General Joseph H. Werhle, Jr., "FY00 President's Budget."

[3] Ibid, n.p.

[4] General Ryan, *Sen McCain Questions*, 40.

Chapter 6

Recommendations

- Senior Air Force leadership should:

- Direct an in-depth analysis to determine if this is a "hollow" Air Force on a broader scale than this paper's, comparing the late 1970s with the late 1990s and into the 21st century.
- Direct a study to predict the effect that such initiatives as higher pay, increased bonuses, Aerospace Expeditionary Forces, and additional funding will have on the force.
- Continue to press hard and maintain the budget increases in 1999, 2000, and through the FYDP. Monitor the effect of these increases closely. If they do not appear to be fixing the problems as envisioned, press for more money. Sustained budget increases are required to provide enduring fixes for current and future readiness problems.

- One might ask why the Air Force senior leadership should pursue an analysis that might put an official "hollow" tag on the Air Force. They might say the budget increases are in place, so it is time to move on and not look back. The reason is simple. It would etch in stone the current readiness situation and make a clear signal to the Administration, the Congress, and the Nation. It would

make it a situation so distasteful and dangerous to national security, that sinking to such a level again would be unacceptable. Therefore, should the mood or the make-up of the Congress and/or the Administration change, such an analysis could prevent the current budget increases from being reversed.

- Commanders at all levels should continue to critically analyze and frankly report readiness status, so senior leadership can have the best information in order to make decisions. This critical analysis should clearly highlight any assumptions made with respect to equipment, personnel, and lift availability. These assumptions are the key to quantifying the actual risk involved in carrying out the National Military Strategy.

Glossary

CPI	Consumer Price Index
CSAF	Chief of Staff Air Force
ECI	Employment Comparability Index
FYDP	Future Years Defense Plan
MC	Mission Capable
MTW	Major Theater War
NMC	Not Mission Capable
NMCS	Not Mission Capable-Supply
NMCM	Not Mission Capable-Maintenance
NMS	National Military Strategy
NOTAM	Notice to Aircrew Members

Bonus Take Rate. The percentage of eligible pilots who take the bonus and incur an additional Active Duty Service Commitment

Depot Level Reparables. Components removed from end items (primarily aircraft) as not serviceable and shipped to the depot for repair. A.k.a. spares

Hollow Force. A force that on paper appears ready to meet the requirements of military conflict, but lacks the real capability to fully carry out the mission

Mission Capable. Ability of aircraft to perform its mission at any given time

NMCS. Inability of aircraft to perform its mission due to the lack of a part required to fix it

NMCM. Inability of an aircraft to perform its mission due to not having the manning, test equipment, or trained or experienced personnel available to fix it

NMC – Both. Inability of an aircraft to perform its mission due to the lack of both parts and maintenance to fix it

OPTEMPO. Short for Operations Tempo. The rate, in days, that units and or weapons systems are deployed from home station

"Redux" Retirement System. The system that became effective in 1986 and changed the retirement pay percentage of average basic pay at 20 years of service from 50% to 40%

Second Term Airmen. Highly trained, mid-career personnel, which provide the lion's share of the technical expertise required to perform tasks. They are the trainers and inspectors

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